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Amendments to the Claims

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one of the additional portions being ~~no larger than~~ less than or equal to the additional granted amount; and

transmitting the one additional portion on the upstream channel during the additional transmission time period if the additional requested amount is larger than the additional granted amount.

6. (*original*) The method of claim 4, in which sending an additional request comprises transmitting the additional request with the one segment in piggyback fashion on the upstream channel.

7. (*original*) The method of claim 6, in which the additional request and the one segment with which the additional request is transmitted are encapsulated together in a PDU packet having a header that signals the presence of the additional request.

8. (*original*) The method of claim 1, in which the grant is received in one of a plurality of MAP messages, the method additionally comprising if the requested amount is larger than the granted amount:

after receiving the grant, checking the one MAP for an additional grant or a grant pending; and

sending on the upstream channel an additional request for an amount of bandwidth to transmit the remaining segment or segments of the data file if the one MAP contains no additional grant or grant pending.

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9. *(original)* The method of claim 8, in which sending an additional request comprises transmitting the additional request with the one segment in piggyback fashion on the upstream channel.

10. *(original)* The method of claim 9, in which the additional request and the one segment with which the additional request is transmitted are encapsulated together in a PDU packet having a header that signals the presence of the additional request.

11. *(currently amended)* The method of claim 9, additionally comprising if the one MAP contains an additional grant:

receiving in the additional grant a granted amount of bandwidth and a transmission time period to transmit data;

comparing the additional requested amount of bandwidth with the additional granted amount of bandwidth;

transmitting the entire data file on the upstream channel during the transmission time period if the additional requested amount is ~~no larger than~~ less than or equal to the additional granted amount;

fragmenting the data file into a plurality of segments if the additional requested amount is larger than the additional granted amount, one of the segments being ~~no larger than~~ less than or equal to the additional granted amount; and

transmitting the one segment on the upstream channel during the transmission time period if the additional requested amount is larger than the granted amount.

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16. *(Previously presented)* The method of claim 15, additionally comprising:

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means responsive to the additional grant for transmitting the data to be transmitted to the cable system if the additionally requested amount is ~~no larger than~~ less than or equal to the additionally granted amount; and

means responsive to the additional grant for transmitting the additional one segment to the cable system if the additional requested amount is larger than the additional granted amount.

21. (*original*) The cable modem of claim 17, additionally comprising means for transmitting with the one segment an additional request in a piggyback field for an amount of bandwidth sufficient to transmit the remaining segments.

22. (*original*) The cable modem of claim 21, in which the grant receiving means is capable of receiving an original grant, one or more additional grants, and/or one or more pending grants in the same MAP, the cable modem additionally comprising:

means for sensing the presence of additional grants or pending grants in said MAP; and

means for setting the piggyback field to zero when the presence of additional grants or pending grants is sensed in said MAP to prevent transmission of any additional requests.

23. (*original*) The cable modem of claim 17, in which the requesting means takes overhead into account in the amount of bandwidth.

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24. (*original*) The cable modem of claim 23, in which the fragmenting means takes overhead into account in the one segment.

25-30. (*canceled*)

31. (*previously presented*) The cable modem of claim 17, further comprising:
timer means for setting the time when a request is transmitted;
means for receiving a request acknowledgement; and
means for resending the request if no request acknowledgement is received before said timer means expires.

32. (*previously presented*) The cable modem of claim 31, further comprising:
means for counting a number of times the request is resent; and
means for discarding a respective data packet when the number of times the request is resent exceeds a predetermined number of times.

33. (*previously presented*) The cable modem of claim 21, wherein said means for transmitting encapsulates the additional request and the one segment with which the additional request is transmitted together in a PDU packet having a header that signals the presence of the additional request.

34. (*previously presented*) The cable modem of claim 22, wherein when the absence of additional grants or grants pending is sensed in said MAP, an additional

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